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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/090,071	06/03/1998	ROBIN MIHEKUM MILLER	60.115344	3501

7590 03/14/2002

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SOUTHFIELD, MI 48075

EXAMINER

NGUYEN, KEVIN M

ART UNIT	PAPER NUMBER
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2674

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DATE MAILED: 03/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/090,071

Applicant(s)

MILLER, ROBIN MIHEKUM

Examiner

Kevin M. Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-8 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-8 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. In view of the supplemental appeal brief filed on 1/2/2002, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5-8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 5,005,009) in view of Ansaldi et al (US 5,343,206).

4. As to claim 5, Robert teaches a head up display for a moving vehicle which has a source 13, and a windshield 10 (see figure 2 and figure 4), a rheostat 33 allows manual intensity control to suit the background lighting in contrast in the environment (see col. 7, lines 67 to col. 8, line 1). Therefore, Roberts teaches all of the claimed limitation of

claim 5, except for "an arrangement for controlling the contrast of the heads up display to an environmental image approaching the moving vehicle wherein the arrangement includes an optical detector for capturing the image of the environment approaching the vehicle and a control coupled to the optical detector for controlling the contrast of the heads up display in response to the environmental image approaching the moving vehicle." However, Ansaldi et al teaches a related head up display for moving vehicle (see figure 6, col. 13, lines 1-8) which includes an edge of road 116, a corridor 119, a crash barrier 117, a tree 122 (an environmental image as claimed), and a rectangular block 125 which represents a possible obstacle will be colored red or yellow will travel on the opposite side (an approaching the moving vehicle as claimed) (see col. 10, lines 32-42). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate a head up display 34 taught by Ansaldi in a head up display of Roberts' system because the condition of the road may be detected by means of suitable type adhesion sensors. As regards the type of display used for the perspective representation of the road situation, various arrangements may be provided (see col. 12, line 63 to col. 13, line 1 of Ansaldi et al).

5. As to claims 6-8, Ansaldi et al teaches a graphic processing 19, which detect an obstacles in travel corridor 46 then select the contrast color red or yellow to the background of an environment. If it is greater (YES' output from block 50) data processing unit 17 instructs graphics processing unit 19 to prepare a representation of the object in yellow (block 51). If instead the output from block 50 is negative, i.e. if the obstacle is within the safe distance, data processing unit 17 instructs graphics

processing unit 19 to represent the object in red (block 55) (see figure 3b, col. 9, lines 32-35 and lines 52-55). It would have been obvious to a person of ordinary skill in the art at the time of the invention to recognize that Ansaldi teaches a data processor 17 which instructs a graphic processing 19 for detecting an obstacles in travel corridor 46 (approaching vehicle), and selecting the contrast color red or yellow to the background of an environment as claimed (see figure 6 and 7).

6. As to claim 12, Robert teaches a method of providing a heads up display (HUD) for a moving vehicle in the manner that has a source 13, and a windshield 10 (see figure 2 and figure 4), a rheostat 33 allows manual intensity control to suit the background lighting in contrast in the environment (see col. 7, lines 67 to col. 8, line 1). Therefore, Roberts teaches all of the claimed limitation of claim 5, except for "controlling the contrast of the heads up display to an environmental image approaching the moving vehicle wherein the step of controlling includes the step of capturing the image of the environment approaching the moving vehicle and controlling the contrast of the heads up display in response to the environmental image captured." However, Ansaldi et al teaches a related method of providing a heads up display in the manner that includes an edge of road 116, a corridor 119, a crash barrier 117, a tree 122 (an environmental image as claimed), and a rectangular block 125 which represents a possible obstacle will be colored red or yellow will travel on the opposite side (an approaching the moving vehicle as claimed) (see col. 10, lines 32-42). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the method of controlling the contrast taught by Ansaldi in a method of Roberts' HUD system because

a method of detecting the condition of the road by means of suitable type adhesion sensors. As regards the type of display used for the perspective representation of the road situation, various arrangements may be provided (see col. 12, line 63 to col. 13, line 1 of Ansaldi et al).

7. Claims 5-8 and 12 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts in view of Kadomukai et al (JP 402227340)

8. As to claims 5 and 12, Robert teaches a method of providing a heads up display (HUD) for a moving vehicle in the manner that has a source 13, and a windshield 10 (see figure 2 and figure 4), a rheostat 33 allows manual intensity control to suit the background lighting in contrast in the environment (see col. 7, lines 67 to col. 8, line 1). Therefore, Roberts teaches all of the claimed limitation of claim 5, except for "controlling the contrast of the heads up display to an environmental image approaching the moving vehicle wherein the step of controlling includes the step of capturing the image of the environment approaching the moving vehicle and controlling the contrast of the heads up display in response to the environmental image captured." However, Kadomukai et al teaches a color camera 5, the signal processing part 1 changes the display position of the symbol to such a position that is large in a contrast between the symbol and the background color and easy to recognize the symbol for the operator (see abstract). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the controlling contrast taught by Kadomukai et al in the HUP of Roberts because this would allow the driver easily distinguishable the obstacle.

9. As to claims 6-8, Kudomukai et al teaches a signal processing part 1 for changing and selecting the display portion of the symbol to such a position that is large in the contrast colors between the symbol and the background color (see abstract).

10. Claims 5-8 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Ejiri et al (US 5,969,969).

11. As to claims 5 and 12, Ejiri et al teaches a vehicle head up display 160, a LED 125 (source), a windshield and a moving vehicle 100, arranging a camera 124, environment sensor 120 (see figure 33, col. 15, lines 15-32), the environmental signal 126a from the proximity sensor 125 is used to get the shape information of the target obstacles detected near the subject vehicle (controlling the contrast as claimed, see col. 16, lines 38-41), when no obstacle is detected a white circle 125a is displayed, and when an obstacle is detected, a black circle 125b is displayed (see figure 34, col. 16, lines 46-48), the obstacle X detected near the vehicle to produce the environmental information 117a corresponding to the vehicle motion (see figure 34, col. 17, lines 26-28), the obstacle X is gain color (see figure 34 and 35).

12. As to claim 6-8, Ejiri et al teaches an information processing unit 110 having a selector 113 (see figure 6, col. 7, lines 58-59).

Response to Arguments

13. Applicant's arguments filed 1/2/2002 have been fully considered but they are not persuasive.

14. Applicant's arguments with respect to claims 5-8 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on MON-FRI from 9:00-5:00 with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reached on **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)


Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Application/Control Number: 09/090,071
Art Unit: 2674

Page 8

Kevin M. Nguyen
Examiner
Art Unit 2674



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Attachment for PTO-948 (Rev. 03/01, or earlier)
6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities -- 37 CFR 1.85

New corrected drawings must be filed with the changes **incorporated** therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.